

AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF THE CLAIMS

1. (Previously Presented) A protein-based film comprising a protein network formed by disulfide bonds between modified proteins having free sulfhydryl groups and unmodified proteins having disulfide bonds, wherein the network contains from about 2 to about 4 free sulfhydryl groups per protein.

2. (Previously Presented) A protein-based film of claim 1, wherein said film has been formed without heat treatment.

3. (Cancelled).

4. (Previously Presented) The protein-based film of claim 1 wherein said modified protein comprises the soluble fraction of modified whey protein, the precipitate fraction of modified whey protein, or combinations thereof.

5. (Previously Presented) The protein-based film of claim 1 wherein said modified protein is prepared by contacting an unmodified protein having disulfide bonds with a sulfite ion forming agent selected from the group consisting of an alkali metal sulfite, an alkali earth metal sulfite, a hydrogen sulfite, a hydrogen metabisulfite, and combinations thereof.

6. (Cancelled).

7. (Cancelled).

8. (Cancelled).

9. (Cancelled).

10. (Cancelled).

11. (Previously Presented) The protein-based film of claim 1 wherein said film has been formed on a substance selected from the group consisting of a food product, a tablet, a granule, a pellet, or a liposome containing therapeutically active agent.

12. (Cancelled).

13. (Cancelled).

14. (Previously Presented) The protein-based film of claim 1 wherein said film has been formed as a capsule shell.

15. (Previously Presented) The protein-based film of claim 1 wherein said film has been formed around lipid, oil, lipophilic compound or combinations thereof to form an emulsion or microcapsule.

16. (Previously Presented) A food product that has been coated with or contains substances coated with a film of claim 1.

17. (Cancelled).

18. (Previously Presented) A pharmaceutical product containing at least one therapeutically active agent, characterized in that has been coated with a film of claim 1.

19. (Previously Presented) A container that has been coated with the film of claim 1.

20. (Currently Amended) Method for preparing a protein-based film comprising a protein network formed by disulfide bonds between the proteins, comprising

~~providing an amount of a~~ protein solution which contains unmodified proteins having disulfide bonds, modified proteins having free sulfhydryl groups, and a plasticizer, the solution having a pH of 7 or below; and

~~contacting the unmodified proteins with a sulfite ion forming agent to obtain a protein solution which contains unmodified proteins having disulfide bonds and modified proteins having free sulfhydryl groups; and~~

drying said solution to form the forming said protein-based film from said solution, wherein the solution has a pH of 7 or below and wherein the sulfite ion forming agent is selected from the group consisting of an alkali metal sulfite, an alkali earth metal sulfite, a hydrogen sulfite, a hydrogen metabisulfite, and combinations thereof.

21. (Previously Presented) The method of claim 20, comprising forming said film without heat treatment.

22. (Currently Amended) The method of claim 20 wherein the amount of the free sulfhydryl groups in the total protein of the solution before the interchange reaction film is formed is 0.5-60 $\mu\text{mol/g}$ protein.

23. (Cancelled).

24. (Cancelled).

25. (Currently Amended) The method of claim 2035, wherein the amount of sulfite used is 0.01-0.06% (w/v).

26. (Previously Presented) The method of claim 20 wherein said modified protein comprises the soluble fraction of modified whey protein, the precipitate fraction of modified whey protein, or combinations thereof.

27. (Cancelled).

28. (Cancelled).

29. (Cancelled).

30. (Previously Presented) The method of claim 20 including forming the film on a substance selected from the group consisting of a food product, a tablet, a granule, a pellet, or a liposome containing therapeutically active agent.

31. (Cancelled).

32. (Cancelled).

33. (Previously Presented) The method of claim 20 including forming the film as a capsule shell.

34. (Previously Presented) The method of claim 20 including forming the film around lipid, oil, lipophilic compound or combinations thereof to form an emulsion or microcapsule.

35. (New) The method of claim 20, wherein the modified proteins are formed by contacting the unmodified proteins with a sulfite ion forming agent selected from the group consisting of an alkali metal sulfite, an alkali earth metal sulfite, a hydrogen sulfite, a hydrogen metabisulfite, and combinations thereof.